

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW OPTICOM EMERGENCY VEHICLE PREEMPTION AT THE INTERSECTION OF MD 235 AND RUE PURCHASE ROAD /BUCK HEWITT ROAD IN ST.MARY'S COUNTY. THE PRE-EMPTION IS INTENDED FOR THE BUCK HEWITT APPROACH. MD 235 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE LEFT TURN PHASES FOR NORTHBOUND AND SOUTHBOUND MD 235. SIDE STREET TRAFFIC MOVEMENTS ARE NOT SIGNAL CONTROLLED, EXCEPT FOR THE EMERGENCY VEHICLE PRE-EMPTION. VIDEO DETECTION IS BEING USED.

CONTROLLER REQUIREMENTS

INSTALLED IS A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE, TWO (2), FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS AND VIDEO DETECTION INTERFACE EQUIPMENT HOUSED IN A NEMA "6" BASE MOUNTED CABINET.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

CAT. CODE NO.	QUANTITY	UNIT	DESCRIPTION
100000	1	EA	MAINTENANCE OF TRAFFIC
800000	2	EA	12 INCH (R, Y, G) LED SIGNAL HEAD SECTION
800000	1	EA	3M OPTICOM #764 DISCRIMINATOR MODULE
800000	1	EA	3M OPTICOM EMITTER SYSTEM 700 SERIES, VISIBLE LIGHT FILTER AND HARDWARE
800000	190	LF	4 CONDUCTOR OPTICOM DETECTOR CABLE
816215	1	EA	OPTICOM NO. 721 DETECTOR EYE
816215	195	LF	ELECTRICAL CABLE -- 7 CONDUCTOR (NO. 14 AWG)

N/A

N/A

N/A

N/A

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

MRS. KIM TRAN ASSISTANT DISTRICT ENGINEER - TRAFFIC (410) 841-1003	MR. JOHN MAYS ASSISTANT DISTRICT ENGINEER - MAINTENANCE (410) 841-1002
MR. JOE HORTY UTILITY ENGINEER (410) 841-1005	MR. JAMES FOLDEN ASSISTANT DISTRICT ENGINEER - CONSTRUCTION (410) 841-1004

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR. CHIEF, TRAFFIC OPERATIONS (410) 787-7630	MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS (410) 787-7676
MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS (410) 787-7631	MS. DARLENE EIDE SUPPLY OFFICE SIGNAL SHOP WAREHOUSE (410) 787-7688
MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS (410) 787-7652	

PHASE CHART

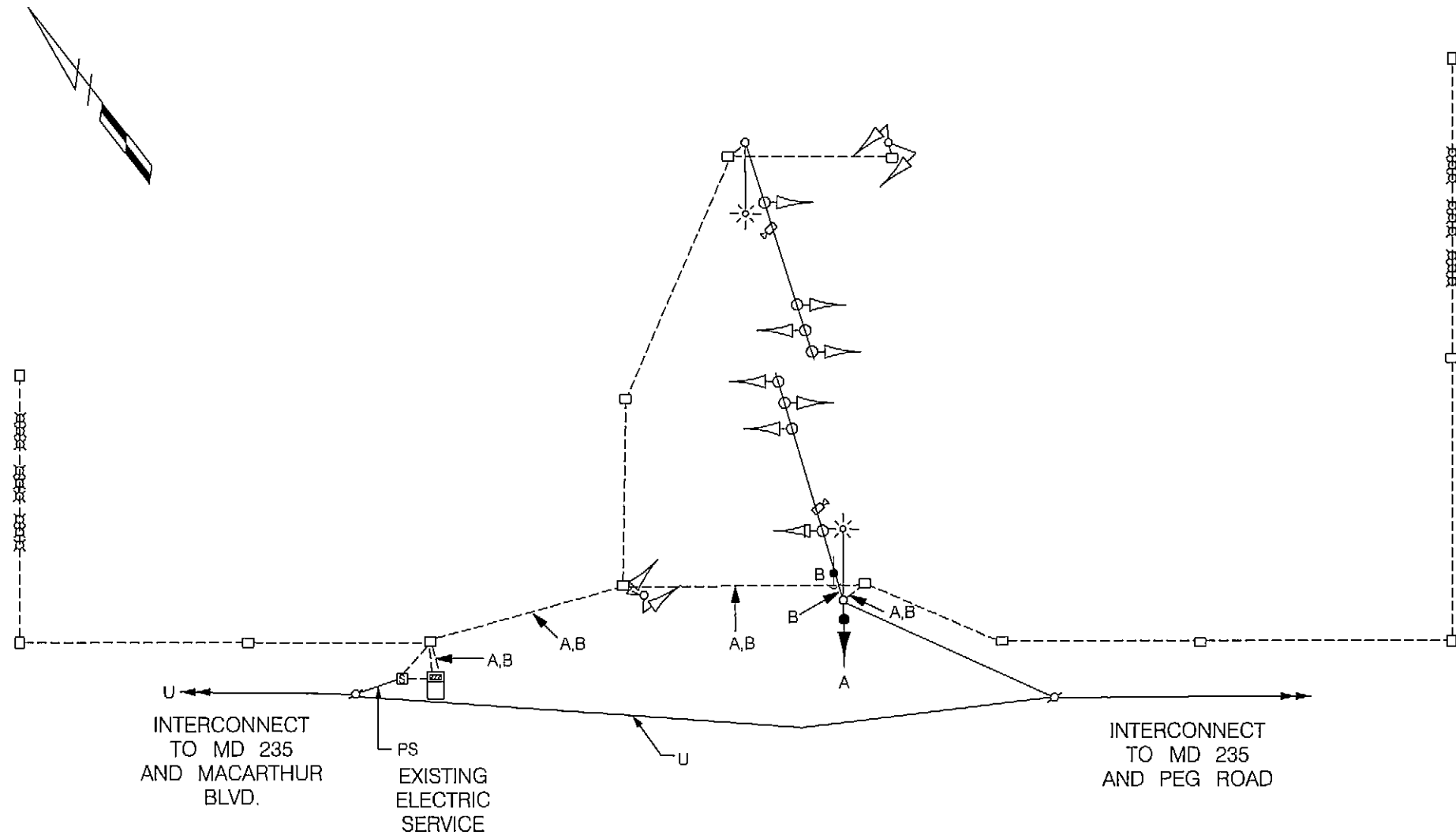
1	1a	2	3	4	5	6	6a	7	8	9	10	11
(R)	(R)	(R)	(R)	(R)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)	(R)
(Y)	(Y)	(Y)	(Y)	(Y)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)
(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)	(G)

PHASE 1 & 5	G	G	←G→	←G→	R	R	G	G	←G→	←G→	R	R	DARK	
1 & 5 CHANGE	PHASE 1 & 5 MAY CHANGE TO PHASE 1 & 6, 2 & 5, OR 2 & 6													
PHASE 1 & 6	G	G	←G→	←G→	G	G	R	R	←R→	←R→	R	R	DARK	
1 & 6 CHANGE	Y	Y	←Y→	←Y→	G	G	R	R	←R→	←R→	R	R	DARK	
PHASE 2 & 5	R	R	←R→	←R→	R	R	G	G	←G→	←G→	G	G	DARK	
2 & 5 CHANGE	R	R	←R→	←R→	R	R	Y	Y	←Y→	←Y→	G	G	DARK	
PHASE 2 & 6	R	R	←R→	←R→	G	G	R	R	←R→	←R→	G	G	DARK	
2 & 6 CHANGE	R	R	←R→	←R→	Y	Y	R	R	←R→	←R→	Y	Y	DARK	
FLASHING OPERATION	FL / R	FL / R	FL / R	FL / R	FL / Y	FL / Y	FL / Y	FL / R	FL / R	FL / R	FL / R	FL / Y	FL / Y	DARK

EMERGENCY VEHICLE PRE-EMPTION

PRE-EMPTION	R	R	←R→	←R→	R	R	R	R	←R→	←R→	R	R	FL / R	
CHANGE	R	R	←R→	←R→	R	R	R	R	←R→	←R→	R	R	FL / R	
PHASE 2 & 6	R	R	←R→	←R→	G	G	R	R	←R→	←R→	G	G	DARK	

WIRING DIAGRAM



WIRING KEY

- A - 4-CONDUCTOR OPTICOM DETECTOR CABLE (PROPOSED)
- B - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) (PROPOSED)
- U - 12-PAIR VOICE GRADE INTERCONNECT CABLE (EXISTING)

NOTE:

- NEW INTERCONNECT CABLE HAS BEEN INSTALLED BETWEEN THE NEW CONTROLLER AND THE EXISTING CONTROLLER AT MD 235 AND MACATHUR BLVD.
- THE EXISTING INTERCONNECT FROM THE CONTROLLER AT MD 235 AND PEG ROAD HAS BEEN USED AND RE-ROUTED TO THE NEW CONTROLLER.



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN  
MD 235 AND RUE PURCHASE /  
BUCK HEWITT ROADS

SCALE NONE DATE 10-2-09 CONTRACT NO.

DESIGNED BY	MATAMBA KABENGLE	COUNTY	ST. MARY'S
DRAWN BY	MATAMBA KABENGLE	LOGMILE	1823514.003
CHECKED BY	DERRICK DICKERSON	T.I.M.S. NO.	I-495 (REVISION)
F.A.P. NO.	NA	TOD NO.	

DRAWING NO. TS-4623 GI

SHEET NO. 2 OF 2